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Approved for use through 10/31/2002. OMB 0651-0031  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>TRANSMITTAL FORM</b> <i>(to be used for all correspondence after initial filing)</i>		Application Number	10/080,120
		Filing Date	2/21/2002
		First Named Inventor	De et al. <b>RECEIVED</b>
		Group Art Unit	Not Yet Known <b>MAY 30 2002</b>
		Examiner Name	Not Yet Known <b>Technology Center 2600</b>
Total Number of Pages in This Submission	7	Attorney Docket Number	I-2-0173.10US

**ENCLOSURES (check all that apply)**

<input checked="" type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Assignment Papers <i>(for an Application)</i>	<input type="checkbox"/> After Allowance Communication to Group
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment / Reply	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Group <i>(Appeal Notice, Brief, Reply Brief)</i>
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address	<input type="checkbox"/> Other Enclosure(s) (please identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Terminal Disclaimer	
<input checked="" type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> Request for Refund	
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> CD, Number of CD(s) _____	
<input type="checkbox"/> Response to Missing Parts/ Incomplete Application		
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53		
Remarks		

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm or Individual name	JEFFREY M. GLABICKI Volpe and Koenig, P.C.	Reg. No. 42,584
Signature		
Date	May 20, 2002	

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, Washington, DC 20231 on this date:

May 20, 2002

Typed or printed name	JEFFREY M. GLABICKI		
Signature		Date	May 20, 2002

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Volpe and Koenig Revision of PTO/SB/17 (10-01)  
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 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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# FEE TRANSMITTAL for FY 2002

Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT	(\\$) 0
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## Complete if Known

Application Number	10/080,120
Filing Date	2/21/2002
First Named Inventor	De et al.
Examiner Name	Not Yet Known
Group Art Unit	Not Yet Known
Attorney Docket No.	I-2-0173.10US

## METHOD OF PAYMENT

1.  The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:

Deposit Account Number **22-0493**  
 Deposit Account Name **VOLPE AND KOENIG, P.C.**

Charge any Deficiencies or Credit any Overpayment in the Total Fees Associated With This Communication

Applicant claims small entity status.  
 See 37 CFR 1.27

2.  Payment Enclosed:

Check  Credit card  Money Order  Other

## FEE CALCULATION

### 1. BASIC FILING FEE

Large Entity Small Entity

Fee Code (\$)	Fee (\$)	Fee Code (\$)	Fee Description	Fee Paid
101	740	201	370 Utility filing fee	
106	330	206	165 Design filing fee	
107	510	207	255 Plant filing fee	
108	740	208	370 Reissue filing fee	
114	160	214	80 Provisional filing fee	

**SUBTOTAL (1) (\\$) 0**

### 2. EXTRA CLAIM FEES

Total Claims	Extra Claims	Fee from below	Fee Paid
Independent	** = <input type="text"/>	X <input type="text"/>	= <input type="text"/>
Multiple Dependent	** = <input type="text"/>	X <input type="text"/>	= <input type="text"/>

Large Entity Small Entity

Fee Code (\$)	Fee (\$)	Fee Code (\$)	Fee Description
103	18	203	9 Claims in excess of 20
102	84	202	42 Independent claims in excess of 3
104	280	204	140 Multiple dependent claim, if not paid
109	84	209	42 ** Reissue independent claims over original patent
110	18	210	9 ** Reissue claims in excess of 20 and over original patent

**SUBTOTAL (2) (\\$) 0**

\*\*or number previously paid, if greater; For Reissues, see above

## 3. ADDITIONAL FEES

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
105	130	205 Surcharge - late filing fee or oath	<b>RECEIVED</b>
127	50	227 Surcharge - late provisional filing fee or cover sheet	<b>MAY 30 2002</b>
139	130	139 Non-English specification	<b>Technology Center 2600</b>
147	2,520	147 For filing a request for ex parte reexamination	
112	920*	112 Requesting publication of SIR prior to Examiner action	
113	1,840*	113 Requesting publication of SIR after Examiner action	
115	110	215 Extension for reply within first month	
116	400	216 Extension for reply within second month	
117	920	217 Extension for reply within third month	
118	1,440	218 Extension for reply within fourth month	
128	1,960	228 Extension for reply within fifth month	
119	320	219 Notice of Appeal	
120	320	220 Filing a brief in support of an appeal	
121	280	221 Request for oral hearing	
138	1,510	138 Petition to institute a public use proceeding	
140	110	240 Petition to revive - unavoidable	
141	1,280	241 Petition to revive - unintentional	
142	1,280	242 Utility issue fee (or reissue)	
143	460	243 Design issue fee	
144	620	244 Plant issue fee	
122	130	122 Petitions to the Commissioner	
123	50	123 Processing fee under 37 CFR 1.17(q)	
126	180	126 Submission of Information Disclosure Stmt	
581	40	581 Recording each patent assignment per property (times number of properties)	
146	740	246 Filing a submission after final rejection (37 CFR § 1.129(a))	
149	740	249 For each additional invention to be examined (37 CFR § 1.129(b))	
179	740	279 Request for Continued Examination (RCE)	
169	900	169 Request for expedited examination of a design application	
Other fee (specify) _____			

\*Reduced by Basic Filing Fee Paid

**SUBTOTAL (3) (\\$) 0**

## SUBMITTED BY

Complete (if applicable)

Name (Print/Type)	Jeffrey M. Glabicki	Registration No. (Attorney/Agent)	42,584	Telephone	215-568-6400
Signature				Date	May 20, 2002

**WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

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PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the PATENT APPLICATION of:

De et al.

**Application No.:** 10/080,120

**Filed:** 02/21/2002

For: SINGLE USER DETECTION USER  
EQUIPMENT

Group: Not Yet Known

Examiner: Not Yet Known

Our File: I-2-0173.10US

Date: May 20, 2002

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MAY 30 2002

Technology Center 2600

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

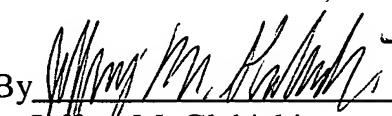
Further to applicant's Duty of Disclosure pursuant to 37 C.F.R. § 1.56, applicant wishes to bring to the Examiner's attention the material cited on the enclosed PTO-1449 form.

**Applicant: De et al.**  
**Application No.: 10/080,120**

It is respectfully requested that the Examiner consider these documents and return an initialed copy of the PTO-1449 form indicating his consideration of the cited materials.

Respectfully submitted,

De et al.

By   
Jeffrey M. Glabicki  
Registration No. 42,584  
(215) 568-6400

Volpe and Koenig, P.C.  
Suite 400, One Penn Center  
1617 John F. Kennedy Boulevard  
Philadelphia, PA 19103

JMG/jrd  
Enclosures



FORM PTO-1449		ATTY. DOCKET NO. I-2-0173.10US	SERIAL NO. 10/080,120
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		APPLICANT De et al.	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		FILING DATE 2/21/2002	GROUP Not Yet Known
(Use several sheets if necessary)			

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

AA		Ramjee Prasad, Werner Mohr and Walter Konhauser editors, <i>Third Generation Mobile Communication Systems</i> , Artech House, Boston, 2000.
AB		Anja Klein, Ghassan Kawas Kalleh and Paul Walter Baier, "Zero Forcing and Minimum Mean-Square Error Equalization for Multiuser Detection in Code-Division Multiple-Access Channels", <i>IEEE Trans. on Vehicular Technology</i> , Vol.45, No. 2, pp. 276-287, May 1996.
AC		Naja Klein, "Data Detection Algorithms Specially Designed for the Downlink of CDMA Mobile Radio Systems", <i>IEEE 47th Vehicular Technology Conference</i> , pp. 203-207, May 1997.
AD		H.R. Karimi and N.W. Anderson, "A Novel and Efficient Solution to Block-Based Joint-Detection using Approximate Cholesky Factorization", <i>Personal, Indoor and Mobile Communications PIMRC' 98</i> , Conference Proceedings, Vol. 3, pp. 1340-1345, Sept. 1998, Boston, MA.
AE		ETSI STC SMG2 Layer 1 Expert Group, "Low Cost MMSE-BLE-SD Algorithm for UTRA TDD Mode Downline", Tdoc SMG2 UMTS L1, Helsinki, Finland, Sept. 1998.
AF		3G TS 25.102 V3.4.0, 2000-10, "UTRA (TDD) Radio Transmission and Reception", 3rd Generation Partnership Project, Technical Specification Group RAN WG4, Annex B., pp. 37.

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.